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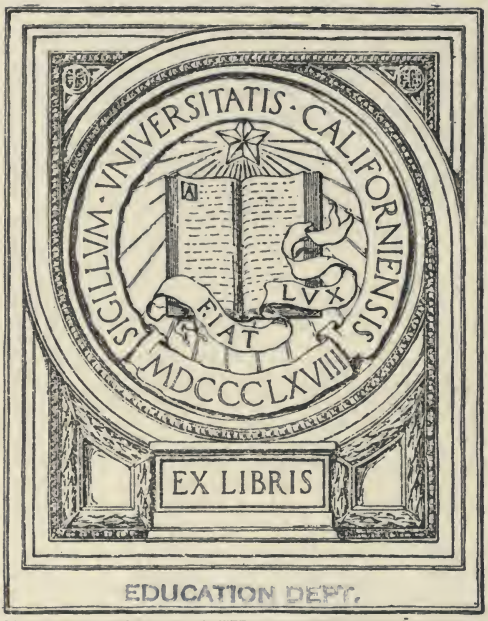

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Published February 1911

EDUCATION DEPT.

Composed and Printed By
The University of Chicago Press
Chicago, Illinois, U.S.A.

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V. THE PUBLIC TRADE SCHOOL

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In these days when the entire public instructional system of the United States is being scrutinized from within and without in the endeavor to reply to the question, "Just what do you do to prepare for vocational efficiency?" those who are actively engaged in the problem of specific vocational preparation are not exempt. Such efforts on the part of the public-school system to send out graduates trained for a definite vocation are new with the exception of higher institutions which have for years prepared students for professional lives and some high schools which instituted commercial courses including shorthand and typewriting.

Two basic questions propounded to the trade school are: Can a boy serve a successful apprenticeship in a trade school? If so, what does it cost the taxpayer? These seem to be the main questions. Those who are interested in educational work have many more questions in detail to ask.

On January 2, 1912, the Milwaukee Public School of Trades for Boys was six years of age. A brief outline of its history, organization, and results obtained during that time follows: On the evening of February 2, 1904, Mr. Frederick W. Sivyer, president of the Northwestern Malleable Iron Company of Milwaukee made his inaugural address as president of the Merchants and Manufacturers' Association of that city. Among the matters recommended to be considered by the association during his term of office was the need of industrial education for the youth of the community. His suggestion met with an immediate and hearty response. A committee was appointed to gather data regarding trade schools here and abroad. Loyal support was pledged to the movement. On January 2, 1906, the school was formally opened to sixty young men eager to become skilled workmen. At first instruction in but two trades was given, namely, pattern-making and plumbing in the day and night classes. In September of the same year the machinist trade was added to the curriculum.

Early in the year 1907, a problem, which gradually had been growing more and more serious, had to be fairly met and solved. It was a question of finances. To charge students the cost of their tuition in a properly conducted trade school means to debar the very ones who need the instruction. Equally impractical is it to expect a few to bear the expense of a work so valuable to the entire community. The need of such a school was proven the first day it opened its doors. From its outset it was making better workmen and better citizens. It was the opportunity and privilege of the Merchants and Manufacturers' Association to start such a work in the life of a city, but it was not its bounden duty to continue it. The child grew beyond the power of its parent to support it. Since the work brought a rich harvest to the municipality, the municipality should bear the expense of the sowing. The solution of the problem lay in having the trade school included in the public-school system of the city. To do this, a tax, additional to the one already levied for the public schools, was necessary. This extra assessment could be collected only by the permission of the state legislature. Consequently, a bill was prepared and presented to that body early in 1907. It met with immediate indorsement in both Assembly and Senate. It passed and became effective July 1, 1907.

The Milwaukee Board of School Directors immediately seized its opportunity to take over a trade school well equipped to teach three trades and with one and one-half years' experience in pioneer work. On account of this progressive step on the part of the public-school authorities the original subscribers deeded the entire equipment of the school to the city in fee simple.

The passage of the act made two vitally necessary things possible, namely, a longer and more thorough course and free tuition. More floor space was rented and preparations made to include another trade in the curriculum, namely, a thorough course in woodworking. Instruction in this department began July 1, 1908.

On December 31, 1909, fire destroyed the main building, crippling the departments of machine, pattern-making, and woodworking. Fortunately, the entire loss was covered by insurance. Near-by temporary quarters were rented at once.

During the year 1911 the Board of School Directors authorized the erection of a Municipal Trade School. The building which is being erected is to cost without equipment approximately $210,000.00. The

site, 300×150 feet, which was obtained by condemnation proceedings, cost $42,500.00. It is expected two wings of 50×100 feet, and three stories high each, and the power plant will be ready for occupancy by September, 1912. Upon the completion of the new plant it is planned to include several new trades. This, briefly, is the history of the Milwaukee Public School of Trades for Boys.

It will be of interest to note that on December 1, 1909, the Board of School Directors established a Public School of Trades for Girls, which admitted girls at fourteen years of age. This school, which has a capacity for two hundred forty-five girls in day and night classes, respectively, is at present so popular that a waiting-list has become compulsory in all its sessions. It is expected by September, 1912, to be able to accommodate three hundred seventy-five pupils in day and night classes, respectively.

Before touching upon the results accomplished in the six years of its existence, a brief outline of the present organization of the boys' trade school may be of interest. The school is under the immediate supervision of an Advisory Committee of the Board of School Directors, as provided by legislative act. The school is maintained by the assessment of a special tax, not exceeding three-tenths mill, for the purpose of industrial education.

The trades taught are two manufacturing: machinist and tool-making, and pattern-making; and two building trades: woodworking, and plumbing and gas-fitting. The total capacity of the school is one hundred fifteen students in day and night classes, respectively, subdivided as follows: pattern-making, woodworking, and plumbing, twenty-five each, machinist and tool-making, forty. The length of each course is measured by the problems which must be mastered rather than by a specified amount of time. Approximately two years of fifty weeks per year and forty-four hours per week—allowing seven legal holidays per year—making the total time approximately four thousand, two hundred eighty-eight hours is the time usually required by the first three above-mentioned trades. The plumbing and gas-fitting trade requires less time. It is the aim of the school to place the student in conditions as nearly as possible like those he will meet in actual practice. School hours are from 8:00 A.M. to 12:00 M., and from 1:00 P.M. to 5:00 P.M. daily except Saturday; Saturday sessions 8:00 A.M. to 12:00 M.; evening classes 7:30 to 9:30 P.M. on Monday, Tuesday, Thursday, and Friday nights of each week from October 1 to April 30.

The course of instruction in each trade includes the following five branches:

1. Shop Practice and Trade Lectures
2. Drawing
   - Mechanical Drawing
     - Isometric
     - Working Drawings
     - Problems in Design
     - Architectural
   - Free-hand Working Drawing
3. Workshop Mathematics
   - Shop Arithmetic
   - Shop Algebra
   - Shop Geometry
   - Shop Trigonometry
4. Shop Inspection Trips
   - In connection with each trip a carefully written report must be submitted
5. Practical talks and lectures on subjects connected with each trade, and topics fundamental to all trades.

Approximately one-fourth of the student's time during his course is devoted to mechanical drawing and to the academic instruction incidental to his trade and vitally essential to the first-class artisan whom the world needs and the school is endeavoring to develop; the remaining three-fourths being spent in actual shop practice.

A special feature of all the classroom work consists in adapting it as nearly as possible to the special requirements of the various trades. For instance, a different class of instruction is given in mechanical drawing and workshop mathematics for each trade.

A good working knowledge of elementary mathematics is highly essential to the successful mechanic and foreman, and a good course in this subject is given. While it is conceded that many other branches would prove of value to the students, it has not been deemed advisable to introduce them into the actual work of the school, but the students are urged to supplement their practical work by as much outside reading and study as possible. Home work is required of all students. They are urged to subscribe for some good trade journal along the lines of their chosen trade and keep in close touch with the latest and best methods of trade practice. It is also urged upon them to start a library of their own. The world today has excellent facilities for self-culture for the ambitious and industrious youth. Wisconsin offers the oppor-

tunities of university extension work. The advantages to be obtained by continuation work in the city night schools of both grammar and high-school grade are carefully impressed upon the graduate of this school.

It is not the purpose of the school that its graduates shall be merely skilled artisans; it is intended that they shall not only be trained and efficient, but intelligent workmen, desirous of making the most out of themselves in their chosen vocation from its every point of view.

Each student receives personal attention and instruction and no student is held back on account of the slowness of other pupils. Careful attention is paid to the formation of neat habits of work in each student, and only the best methods of procedure are taught. All work is done from drawings and no problem, either in classroom or shop, that does not have a practical application is given to a pupil. Theory and practice are closely related all through each apprenticeship. It is the purpose of the school to surround the students by the best environment and atmosphere. Habits of punctuality are encouraged and the value of the possession of a good trade impressed upon the students. The use of tobacco is not allowed on the premises.

It is also the aim of the school to secure instructors who are specialists in their line, men who are interested in the work and who can impart their knowledge and experience to apprentices.

The class of work given to the students is carefully planned to be as nearly as possible of equal educational and practical value. Thus the student's interest is aroused and held. A high standard of workmanship is demanded from every student and only those attaining it are permitted to graduate.

The night classes are planned principally to supplement the experience of apprentices and journeymen who are employed during the day at the trade in which they desire advancement under night instruction. The total day instruction of the two-year courses requires four thousand, two hundred eighty-eight hours. The total night instruction of one term of thirty-one weeks at eight hours per week amounts to two hundred forty-eight hours. Thus it is evident that none but students of exceptional ability and determination could expect to serve the entire school apprenticeship in night classes only. The school does not advise students to attempt to learn a trade by this means.

In order to qualify for admission, students must be sixteen years of

age and be able to read and write in English and perform the fundamental operations of arithmetic. Eighth-grade graduates are admitted without examination and are given preference over applicants who have not had such preparation. Since it is required by the Board of School Directors that a pupil be at least sixteen years of age in order to be admitted it is urged upon all boys desirous of entering that they take advantage of every opportunity offered by the public-school system up to the age when they are eligible for admission to this school.

Boys who have graduated from the eighth grade and who desire to attend the Trade School, but who are below the age at which they may enter, will be allowed to pursue in the high schools, until they reach the trade-school age, those studies which will be of most help to them in their future work in this school.

The cost of maintaining this school is approximately two hundred and fifty dollars per year for each pupil. Thus in two years a boy receives an education costing from four hundred to five hundred dollars, and by means of it, the advantage of a start in life of inestimable value.

Tuition is free to boys who are residents of Milwaukee and between the ages of sixteen and twenty. They are required to pay $1.00 per month for materials. Residents over twenty are required to pay $5.00 per month, which includes material charges. Non-residents are required to pay $15.00 per month, which also includes material charges. Instruction is given in night classes four evenings per week from October 1 to April 30, two hours each evening, with charges as follows: Residents between sixteen and twenty, tuition free and fifty cents per month for material charge; residents over twenty, $1.00 per month for tuition and materials; all non-residents, $4.00 per month for tuition and materials.

In complying with the request of the Wisconsin Legislative Committee on Industrial Education in the spring of this year for information regarding attendance and per capita cost and the number of graduates the following information was found. These figures include enrolment from January 2, 1906, to April 1, 1911.

TOTAL NUMBER PUPILS ENTERED

Trade	Day	Night
Pattern-making	89	105
Machinists	132	215
Plumbing	119	214
Woodworking	28	46
Cable splicing	17	...
Mechanical drawing	...	22
	385	602

AVERAGE LENGTH OF ATTENDANCE OF PUPILS

	Day	Night
Pattern-making	11.4 mos.	4.5 mos.
Machinists	7.7 mos.	4.6 mos.
Plumbing	3.4 mos.	3.7 mos.
Woodworking	9.3 mos.	4.7 mos.
Final average	8 mos.	4.4 mos.

CLASSIFICATION OF ATTENDANCE

Day Classes

24	pupils or	7 %	remained	24 mos.
9	" "	2½%	"	21 "
18	" "	5 %	"	16 "
15	" "	4 %	"	13 "
8	" "	2¼%	"	12 "
5	" "	1½%	"	11 "
12	" "	3½%	"	10 "
15	" "	4½%	"	9 "
16	" "	4¾%	"	8 "
24	" "	7 %	"	7 "
32	" "	9¼%	"	6 "
19	" "	5½%	"	5 "
35	" "	10 %	"	4 "
22	" "	6¼%	"	3 "
30	" "	8½%	"	2 "
48	" "	13½%	"	1 "
18	" "	5 %	"	1 "
350		100%		less than 1 mo
35*				
385				

Night Classes

1	pupil or	.2%	remained	27 mos.
3	" "	.5%	"	22 "
1	" "	.2%	"	21 "
1	" "	.2%	"	19 "
2	" "	.3%	"	18 "
11	" "	2. %	"	14 "
4	" "	.7%	"	13 "
4	" "	.7%	"	12 "
4	" "	.7%	"	11 "
4	" "	.7%	"	10 "
11	" "	2.0%	"	9 "
13	" "	2.0%	"	8 "
61	" "	12.0%	"	7 "
64	" "	12.4%	"	6 "
35	" "	7.0%	"	5 "
51	" "	10.0%	"	4 "
52	" "	10.0%	"	3 "
64	" "	12.4%	"	2 "
109	" "	21.0%	"	1 "
26	" "	5.0%	"	less than 1 mo.
521		100%		
81*				
602				

* These students were enrolled during first six months of school. No data was made of their ages.

AVERAGE AGE OF PUPILS ON ENTERING

19 years in day classes
21 years in night classes

CLASSIFICATION OF AGE OF PUPILS ON ENTERING

Day Classes								Night Classes							
129	students	or	37	%	enter	at	16 yrs.	60	students	or	11.5%	enter	at	16 yrs.
67	"	"	19	%	"	"	17 "	91	"	"	18.0%	"	"	17 "
42	"	"	14	%	"	"	18 "	93	"	"	18.5%	"	"	18 "
30	"	"	9	%	"	"	19 "	63	"	"	12.4%	"	"	19 "
24	"	"	6	%	"	"	20 "	38	"	"	7.4%	"	"	20 "
15	"	"	3¾	%	"	"	21 "	27	"	"	5.2%	"	"	21 "
9	"	"	2½	%	"	"	22 "	28	"	"	5.3%	"	"	22 "
8	"	"	2¼	%	"	"	23 "	14	"	"	2.5%	"	"	23 "
3	"	"	¾	%	"	"	24 "	11	"	"	2.0%	"	"	24 "
2	"	"	½	%	"	"	25 "	16	"	"	3.0%	"	"	25 "
5	"	"	1¼	%	"	"	26 "	15	"	"	3.0%	"	"	26 "
2	"	"	½	%	"	"	27 "	12	"	"	2.0%	"	"	27 "
4	"	"	1	%	"	"	28 "	8	"	"	1.0%	"	"	28 "
3	"	"	¾	%	"	"	30 "	5	"	"	1.0%	"	"	29 "
1	"	"	¼	%	"	"	34 "	12	"	"	2.0%	"	"	30 "
4	"	"	1	%	"	"	38 "	2	"	"	.3%	"	"	31 "
2	"	"	½	%	"	"	42 "	4	"	"	.7%	"	"	32 "
								3	"	"	.6%	"	"	34 "
350			100	%				3	"	"	.6%	"	"	35 "
35*								2	"	"	.2%	"	"	36 "
								2	"	"	.4%	"	"	37 "
385								2	"	"	.4%	"	"	38 "
								3	"	"	.6%	"	"	40 "
								2	"	"	.4%	"	"	42 "
								4	"	"	.8%	"	"	45 "
								1	"	"	.2%	"	"	52 "
								521			100	%		
								81*						
								602						

* These students were enrolled during first six months of school. No data was made of their ages.

NUMBER OF GRADUATES

Pattern-makers	12
Machinists	12
Plumbers	10
	34

AVERAGE WAGES BEING RECEIVED BY GRADUATES

(Having left school at an average of 11½ months)

Pattern-makers	31.8 cents per hour
Machinists	32.6 cents per hour
Plumbers	53.2 cents per hour
	117.6 cents
Average	39.0 cents per hour

The per capita cost is approximately $250.00 per year.

A brief discussion of above data may prove helpful to those considering the establishment of trade schools. The bald fact that out of three hundred eighty-five students, enrolled in day classes only, in five and one-fourth years but 7 per cent graduate is likely to be claimed as an irrefutable argument against trade schools by those antagonistic to such institutions in any form or location, or in the public-school system. To even state that the average length of time spent by all the day pupils is but eight months is likely to receive a none too hearty welcome. The cost of the help given all these young men can be computed to a cent but the value received by these three hundred eighty-five hungry lives in day classes and six hundred two in night classes is immeasurable.

The chief cause of disappointment to all educators is the fact that pupils do not stay longer in school and their greatest problem is to find ways and means to diminish the ebb flow. Aside from schools which prepare for the professions practically all schools are academic. The majority of the pupils in academic schools do not expect to use their specific training in their bread-earning work, but the attitude of the pupil who enters a school which trains for specific efficiency, coupled with the desire to be an earner, to be free and do with his earnings as he wishes, makes him shortsighted. This same question of discouragingly small harvests from a costly sowing is witnessed daily in other efforts to advance the efficiency and betterment of the community. The money spent by churches, the outlay for Young Men's and Young Women's Christian Associations, the money and effort advanced for the propaganda to stem the scourge of the white plague, the tireless labor expended for multitudinous philanthropic ends—none bring in the harvest which we fain would witness. It is not a question of becoming impatient, discouraged, or disgusted; it is a matter requiring thorough analysis, an

honest acceptance of what the analysis reveals, and a fearless and tireless effort to remedy the weak places and reinforce the strong ones.

The fact that the graduate of a trade school can make a better showing, both as to the quality and amount of his industrial intelligence and also his earning power, at the end of four years from entering school than the commercial apprentice graduate can in the same length of time from starting his apprenticeship, proves that the cause of short attendance is exterior to the school.

The comparative per capita cost between different schools depends upon the trades taught, the equipment for each trade, and the kind of courses offered and the number of pupils in each trade.

Analyzing all the trades in the world it is found that they come under one of two heads—building trades or manufacturing trades. Analyzing farther it is found that all the building trades are dependent upon the manufacturing trades and all the manufacturing trades are based upon four fundamental trades. These are, in logical order, the drafting, pattern-making, molding, and machinist trades. Several striking facts should be briefly noted regarding these four basic industries. They are all vitally united—they form a series of closely allied, correlated, and inseparable steps, and are the beginnings of things in all the world's industries. A baker is a manufacturer; with flour, water, yeast, and other ingredients, all mixed and baked according to a certain formula, he makes bread. From raw materials he gives us immediately a finished product. The manufacturer ofs team engines cannot put pig iron in his cupola, mix it with a certain per cent of scrap iron, melt all together and make the finished product of a steam engine by pouring the molten metal into a mold. First the design must be made, then the patterns prepared, castings must next be poured in the foundry, and the machine shop must finish and assemble the parts.

Another important point that must be noted, as bearing upon the cost of trade-school equipment is the rapidly increasing ratio of skilled workers needed in these four trades as the evolution of the steam engine progresses. It is very difficult to obtain absolute figures on this point, but probably a fair average is as follows: Five draftsmen will keep from fifteen to twenty-five pattern-makers busy, fifteen pattern-makers will keep fifty to seventy-five molders employed, and fifty molders will keep from one hundred fifty to two hundred machinists employed. Also to be considered is the fact that in approximately the same ratio the cost

of equipment of the four trades advances. Thus it is evident that first-class machinists are far more in demand than the artisans of any other manufacturing trade. Also it is evident that the equipment of the machine shop is the most costly. School-board directors in cities and municipalities must face this problem fairly and not evade it. A city can well afford to retrench along other lines in order to advance the cause of industrial education. The cost of installation for all the building trades is considerably less than that of the fundamental manufacturing industries. So the equipment of our trade schools should be of the best available tools and machinery. The right trade school should be, not only a source of education to the apprentice, but also to the manufacturer in many ways. The trade school should stand for the highest and best along every line.

Another problem to be met is how to dispose of the products of the school. The Milwaukee Board of School Directors, in endeavoring to solve this problem, passed the following resolution: "*Resolved*, That in accordance with chap. 122, secs. 926–27, Laws of 1907, State of Wisconsin, the products of the Milwaukee School of Trades may be sold in open market at prevailing market prices." When the average length of time of remaining in trade school is lengthened the quality of output of each student will be of higher and higher value, and the returns to the school correspondingly larger and the cost to the taxpayer smaller. In this school much of the output from some of the shops is used in the schools of the city.

The cost of the high-school student per year in Milwaukee is approximately $60.00, or $240.00 for his four-year course. The cost of the trade-school graduate is approximately twice this amount for two years, but the trade-school graduate is worth, on leaving school, between three and four times the amount of the high-school graduate who has not had special vocational training in his secondary-school work.

But there is another point from which the municipal trade school may be viewed—that of vocational inspiration. Perplexing as the problem of vocational training for the boy above sixteen years of age may prove to a city, much more difficult is the question to answer rightly what to do with the fourteen- to sixteen-year-old boy who wishes to leave school at fourteen or when completing the grammar-grade work. There are few questions more vital for each boy and girl to answer ere they reach maturity than what their choice of vocation

will be. By rights it should not be necessary for any youth to make such a choice so far-reaching in its results until a good grasp of its import is known to him. And yet in spite of the *individual* and *national* gravity of the matter there is no problem which enters the individual life of a large majority of our youth that is given less serious thought by them, by many parents, by employers, and by boards of education. Just as long as the law permits the departments of education of our country to release their hold on our youth at the age of fourteen just so long will the youth, the nation's greatest asset, be exploited in many ways and all to the loss of the individual exploited.

Between hesitation on the part of boards of education to provide vocational training on the one hand and compelling statistics from the public schools on the other, we are filling the blind-alley occupations with a pitiful supply of what by a merciful interference would make an efficient and grateful CONSERVATION.

In European countries it is the rule rather than the exception that the son learns and follows the trade of his father. In this country the methods of keen competition between many private business colleges assist materially in making the reverse condition true. These private institutions compete with the excellent commercial courses offered free in the high schools of many of our cities. So keen is this competition for students that the addresses of the boys and girls in the eighth grade are paid for in order that the representatives of these private commercial colleges may call upon the parents to bring pressure upon them to send their sons or daughters to these schools. Positions are promised to graduates. By this means many of our boys and girls receive a wrong impression of the true value of an artisan's life simply because a position which permits of white collar and cuffs and clean clothes is made to appeal to them. I look, if not with suspicion, at least with anxious curiosity upon any system of education whereby those who offer it make their livelihood from struggling parents, who already pay taxes in order to offer the same instruction free and in a better way to their children. It is evident that a thorough commercial course in connection with a four-year high-school schedule, with its thorough drill in literature and composition, will make such a graduate of more intrinsic value to the employer than a hasty, crowded course of a year or so in a business college. This does not imply that there are not some good private business colleges or that they do not have their place, but school boards

should know their methods of procedure and take steps to meet their competition by educating both parents and pupils to an appreciation of what a complete high-school commercial course offers.

The city which is fortunate enough to have a municipal trade school in its public-school system can hold before every boy, ere he reaches the age of fourteen, the incentive to remain in school and make the most of himself while he has the opportunity. This can be done by having properly organized and conducted inspection trips for all the boys under fourteen in the public and other schools of the city under the supervision of their respective principals to the trade-school classes while under working conditions. Before leaving the trade school they should be reminded that they must soon leave the school which has been their school home for eight years. Where are they going to? What do they plan to do? What would they like to become? Some have been thinking about the matter, some have never given it a thought. Since they must all make some choice in a few months it is vitally important that they be informed of the heritage which is theirs. They may go on to the high school and choose any of the courses offered there, one of them being a thorough commercial course; they may go on from the high school to the normal school and fit themselves for educational work; or to the university and prepare for a professional life; or they may take the preparatory course at the trade school and afterward the regular trade-school course and prepare for the life of a skilled artisan. They are reminded that it makes little difference what one chooses for his life-work providing he chooses the thing which he feels born to do and that something requires STUDY and TRAINING to reach its highest plane. All must work at something. They are also reminded that a very small percentage of the thousands whom they pass daily, going to and from work, are going to and from a work which they were born, or which they were especially trained, to do. If they prefer the life of an artisan, employers much prefer to hire the trade-school graduate than to try to train him in their shops. Their attention can be called, for instance—to use an illustration given in Milwaukee Trade School during such seventh- and eighth-grade inspection trips—to a modern gear-cutter, made of cast iron and steel and weighing about one ton. The bulk of raw material from which this machine was made was worth about fifty dollars. The machine cost the school one thousand and thirty-five dollars. The difference in price between fifty dollars for the raw material

and the one thousand and thirty-five dollars for the finished tool represented the work and skill required to change the crude stock into an efficient machine. The value of the skilled mechanic, the trained business man, the experienced educator, or the successful professional man over the untrained worker in any walk of life is the amount of self-effort exerted by the individual in trying to reach some goal or ideal. This illustration hits the desired mark, for they have just seen these ingenious workings of the costly tool. The raw material of this high-priced machine might have been melted into rough window weights and sold for but little more than the price of pig iron, or it could be worked into a valuable, useful tool. Do these boys wish to remain practically raw material by beginning as messenger boys and ending by becoming automatons who offer for sale the muscles of their arms and legs, or do they wish to make out of themselves skilled, efficient citizens?

For the boy of fourteen who has completed the eighth grade and who wishes to learn a trade there should be a preparatory department of the trade school where he could learn many things helpful to the skilled artisan while waiting until he can with profit to himself and the community begin upon his regular trade-school course.

The influence of the trade school should also reach out to help a certain class of boys who perhaps cannot for various reasons complete the eighth grade, but who, if saved from employments which will lead them nowhere, would make good artisans at some chosen trade. The best place for trade schools is in the public-school system, and its specific place in that system is where it can help directly and indirectly the boys and girls who feel the desire or need to go to work, and its influence should be available when that desire or need presents itself. Its opportunities should be flexible and not only teach a thorough apprenticeship but also assist in continuation work, and part time instruction if necessary. Its strategic position can be used as a power for vocational inspiration equal to, if not greater than, its opportunity for actual trade teaching.

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